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AMSAT NEWS SERVICE
ANS-311

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-311 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 311.01
  From AMSAT HQ KENSINGTON, MD.
DATE November 6, 2016
To All RADIO AMATEURS
BID: $ANS-311.01

AMSAT Symposium Cruise Port Call Changed

The 2016 AMSAT Space Symposium will be held aboard a commercial cruise ship departing from the port of Galveston, Texas. Sail dates are November 10-14 aboard the Carnival Liberty. Galveston is conveniently located near Houston,
Texas with access from both the George Bush Intercontinental Airport (IAH) and
the Houston Hobby Airport (HOU.)

AMSAT has been notified that due to a technical issue with Carnival Liberty which
only affects the ship;s maximum cruise speed, the arrival and departure times
as well as scheduled itinerary have been modified. This cruise will embark on
Thursday evening, 19:00-22:00 CST and return on the following Monday morning at
10:00 CST. The trip includes two full days at sea and one day in port at Progreso, Mexico. Symposium presentations and meetings will be conducted during

the days at sea to allow free time during the stop while in port. The AMSAT Board of Directors meeting will occur on shore at the DoubleTree by Hilton Galveston Beach, Galveston, Texas, November 9-10.

[ANS thanks Carnival Cruise Lines for the above information]

ARISS Packet Active on 437.550 MHz

N5VHO reported via Twitter (#ARISS, #hamradio) that the ISS packet system now operational on UHF (437.550 MHz). See also: http://www.issfanclub.com/node/41955

[ANS thanks Kenneth, N5VHO, for the above information]

Upcoming ARISS contact with Boca Raton Christian School, Boca Raton FL

An International Space Station school contact has been planned with participants at Boca Raton Christian School, Boca Raton FL on 07 Nov. The event is scheduled to begin at approximately 17:15 UTC. The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be direct between NA1SS and N4BRF. The contact should be audible over the state of Florida and adjacent areas. Interested parties are invited to listen in on the 145.80 MHz downlink. The contact is expected to be conducted in English.

Boca Raton Christian School is a faith-based school distinguished by its academic excellence, spiritual formation, and caring environment. BRCS serves approximately 570 students in grades PreK-12. The campus is situated on approximately 22 acres in downtown Boca Raton, FL. Founded in 1973 as a ministry of Boca Raton Community Church, the school is accredited by several educational institutions and has been recognized twice as a National Blue Ribbon School. The college preparatory high school features a one-to-one laptop program as well as superior fine arts and athletic programs. All BRCS students participate in community service: grades K through 8 are involved in local projects, and high school students spend a week serving under-served communities in Tennessee, Arizona, and Costa Rica.

Amateur Radio on the International Space Station (ARISS) is a cooperative venture of international amateur radio societies and the space agencies that support the International Space Station (ISS). In the United States, sponsors are the Radio Amateur Satellite Corporation (AMSAT), the American Radio Relay League (ARRL), the Center for the Advancement of Science in Space (CASIS) and National Aeronautics and Space Administration (NASA). The primary goal

of ARISS
is to promote exploration of science, technology, engineering, and
mathematics
(STEM) topics by organizing scheduled contacts via amateur radio between
crew
members aboard the ISS and students in classrooms or informal education
venues.
With the help of experienced amateur radio volunteers, ISS crews speak
directly
with large audiences in a variety of public forums. Before and during these
radio contacts, students, teachers, parents, and communities learn about
space,
space technologies, and amateur radio. For more information, see
www.ariss.org,
www.amsat.org, and www.arrl.org.

[ANS thanks David, AA4KN, for the above information]

US Naval Academy Students Plan HF Transponder Satellite

AMSAT-UK reported the US Naval Academy HFSAT received IARU frequency
coordination on October 27, 2016. This is a 1.5U CubeSat with a 15 meter to
10 meter linear transponder. The #HFsat 21.4 to 29.42 MHz inverting
transponder will have a bandwidth of 30 kHz. The satellite will also carry
an APRS digipeater on 145.825 MHz. crossed 1/4 wave whips on VHF and also a
10 meter dipole. No launch has yet been identified.

IARU Coordination:
http://www.amsatuk.me.uk/iaru/formal_detail.php?serialnum=528
US Naval Academy page: http://aprs.org/hfsat.html

[Thanks to IARU and US Naval Academy]

UBAKUSAT 3U Linear Transponder CubeSat

Turkey’s 3U CubeSat UBAKUSAT carrying an amateur radio 145/435 MHz SSB/CW
transponder is planned to be deployed from the ISS in 2017.

The linear transponder is almost the same as that on the TURKSAT-3USAT
which was
launched on April 26, 2013.

The satellite is being developed by Istanbul Technical University,
Faculty of
Aeronautics and Astronautics, Space Systems Design and Test Lab (SSDTL)
along
with TAMSAT, GUMUSH and ERTEK Ltd, with some support of the RF lab of
ITU (RFL)
and Ministry of Transportation, Communication and Maritime in
collaboration with
the Japanese Government.

The primary mission of UBAKUSAT is to provide voice communications for
amateur
radio stations around the globe. Additionally the satellite will carry the
TAMSAT Simplesat card which will send telemetry data, including the relative

radiation data absorbed by the card, to ground stations. There is also a CW beacon.

The estimated duration of the satellite mission is about 6 to 12 months before re-entry. The launch from Japan to the International Space Station is planned for late 2016 or early 2017 and deployment from the ISS will occur sometime later.

IARU coordinated frequencies:
• 437.225 MHz CW Beacon
• 437.325 MHz Telemetry
• SSB/CW transponder:
– 145.940-145.990MHz
– 435.200-435.250 MHz

IARU satellite frequency coordination pages http://www.amsat.org.uk/iaru/

Turkish Amateur Satellite Technologies Organization (TAMSAT)
http://tinyurl.com/TurkeyTAMSAT

[ANS thanks AMSAT-UK for the above information]

NASA CubeSat Launch Opportunity

NASA has opened the next round of its CubeSat Launch Initiative in an effort to engage the growing community of space enthusiasts who can contribute to NASA's space exploration goals.

The CubeSat Launch Initiative gives students, teachers and faculty a chance to get hands-on flight hardware development experience in the process of designing, building and operating small research satellites. It also provides a low-cost pathway to space for research in the areas of science, exploration, technology development, education or operations consistent with NASA's Strategic Plan.

Applicants must submit their proposals electronically by 4:30 p.m. EST, Nov. 22, 2016. NASA will choose the payloads by Feb. 17, 2017, but initial selection does not guarantee a launch opportunity. Certain selected experiments are slated to be flown as auxiliary payloads on agency rocket launches or to be deployed from the International Space Station beginning in 2017 and running through 2020. NASA does not fund the development of the small satellites, and this opportunity is open only to U.S. nonprofit organizations and U.S. accredited educational organizations.

One goal of the CubeSat Launch Initiative is to extend the successes of space exploration to all 50 states by launching a small satellite from at

least one
participant in each state in the next five years. During this round, NASA is particularly focused on gaining participation in the District of Columbia, Puerto Rico and 18 states not previously selected for the CubeSat Launch Initiative. These states are Arkansas, Delaware, Georgia, Iowa, Kansas, Maine,
Minnesota, Mississippi, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Oregon, South Carolina, South Dakota, Washington and Wyoming.

CubeSats are in a class of research spacecraft called nanosatellites. The base
CubeSat dimensions are about 4 inches by 4 inches by 4 inches (10 centimeters by
10 centimeters by 11 centimeters), which equals one "cube," or 1U. CubeSats supported by this launch effort include volumes of 1U, 2U, 3U and 6U. CubeSats
of 1U, 2U and 3U size typically have a mass of about three pounds (1.33 kilograms) per 1U Cube. A 6U CubeSat typically has a mass of about 26.5 pounds
(12 kilograms). The CubeSat's final mass depends on which deployment method is
selected.

To date, NASA has selected 119 CubeSat missions from 66 unique organizations. Of
those missions, 46 have been launched into space with 29 more CubeSats scheduled
to go in the next 12 months.

For additional information about NASA's CubeSat Launch Initiative program, visit
http://go.nasa.gov/CubeSat_initiative.

Questions about this opportunity should be directed to Jason Crusan at Jason.Crusan(a)nasa.gov.

[ANS thanks the NASA Education Express Message -- Nov. 3, 2016 for the above information]

Free Program -- Cubes in SpaceTM

Cubes in SpaceT provides students ages 11-18 an opportunity to design and compete to launch an experiment into space at no cost! Cubes in SpaceT is offered by idoodledu, inc., in partnership with NASA's Goddard Space Flight Center's Wallops Flight Facility, the Colorado Space Grant Consortium and NASA's Langley Research Center.

This global education program based on STEAM (science, technology, engineering, arts and mathematics) enables students to learn about space exploration using innovative problem-solving and inquiry-based learning methods. Participants have access to resources that help prepare them to design and develop an experiment to be integrated into a small cube.

This year, experiments will be launched into space via sounding rocket from NASA's Wallops Flight Facility on Wallops Island, Virginia, in late June 2017 or from a high-altitude balloon launched from NASA's Columbia Scientific Balloon Facility in Fort Sumner, New Mexico, in August 2017.

The deadline for program registration is Jan. 6, 2017. For more information, visit http://www.cubesinspace.com. Questions about this program may be directed to info(a)cubesinspace.com.

About idoodedu inc.
idoodledu inc., a charitable nonprofit 501(c)(3) organization, is a wholly owned subsidiary of idoodlelearning inc., and was created in 2015 as a legal vehicle to bring public/private partnerships and publicly funded programs to all learners and educators. idoodlelearning inc. is an education company based in Ottawa, Canada; London, England; and Virginia Beach, Virginia, USA.

[ANS thanks the NASA Education Express Message -- Nov. 3, 2016 for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS
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